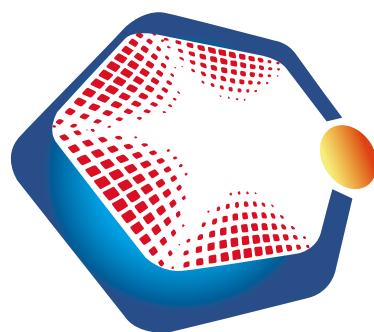


# The International **ISCMP** MACEDONIA 2017

**Joint Science Congress of Materials and Polymers**  
**25-28 August - Metropol Lake Resort - OHRID**

## **ABSTRACT BOOK**





The International  
**ISCMP**

MACEDONIA 2017

**Joint Science Congress of  
Materials and Polymers**

# ISCMP 2017

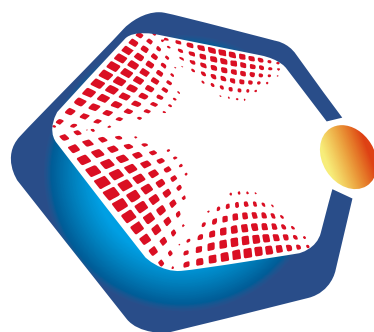
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The International Joint Science Congress of Materials & Polymers  
25-28 August 2017 ■ Ohrid, Macedonia

## ABSTRACT BOOK

### **Organized by**

Çanakkale Onsekiz Mart University  
Chemists Society  
Turkish Cooperation and Coordination Agency  
Tetova State University  
University “Mother Teresa” – Skopje  
University of Tuzla, Bosnia and Herzegovina  
Polytechnic University of Tirana  
University of Prishtina  
Tunisian Chemical Society



The International  
**ISCMP**

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**Joint Science Congress of  
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# WELCOME ADDRESS

Dear participants,

Remarkable advances have been achieved in the science of materials and polymer over the last fifty years. A high quality of life away from environmental destruction has been set as a goal for a high level of human welfare and a sustainable future. As a result, more novel and functional materials have been introduced into everyday life. It is expected by not only sectoral and academic stakeholders but also end users that this process will last longer, producing more beneficial results.

Therefore, it is the primary aim of this scholarly gathering to transform research- and innovation-focused scientists, financial success promoting production, and social responsibility-oriented industry into strong stakeholders. To this end, an academic event will be jointly organized by the Chemists Society (Turkey), Canakkale Onsekiz Mart University (Turkey), Republic of Turkey Prime Ministry-Turkish Cooperation and Coordination Agency, Tunisian Chemical Society (Tunisia), Prishtina University (Kosovo), University Polytechnic of Tirana (Albania), University "Mother Teresa" - Skopje (Macedonia), Tetova University (Macedonia) and University of Tuzla Bosnia and Herzegovina (Bosnia and Herzegovina) of four different countries with sectoral supports.

It is believed that the assembly of participants from different countries will allow them to share their knowledge, to exchange views, and to form various partnerships. Along with the scientific activities, a comprehensive social activities calendar was produced by the organizing committee to allow for fruitful interactions.

Although it is, broadly speaking, a scientific congress, it is different from other congresses in terms of such aspects as follows;

(i) A collaboration protocol will be signed between the partners of the ICSMP following the completion of the Congress. Each partner will deliver a presentation on their strengths and interest in field of collaboration. Then, the partners will sign bilateral and multilateral agreements. (ii) Participants with posters will be allowed to deliver a four-minute presentation if they wish to and will be awarded a certificate of short oral presentation.

We would be more than happy to see you with us.

**Assoc. Prof. Ayhan ORAL**

Chairperson of ISCMP Organizing Committee

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***\*Sorted alphabetically by last name***

# ISCMP 2017 SCIENTIFIC PROGRAM

## Friday, 25 August 2017 (Day 1)





12:00 – 17:00 Registration

15:00 – 16:00 Opening & Protocol Speeches

-  **Ayhan Oral**, Ph.D., *The Chairperson of ISCMP Organizing Committee*
-  **Ahmed Jashari**, Ph.D., *University of Tetova*
-  **Aytekin Ayden**, *Republic of Turkey Prime Ministry, Turkish Cooperation and Coordination Agency*

16:00 – 16:15 Coffee Break




16:15 – 17:30 Introduction Speeches of Universities and Associations

-  **Süha Özden**, Ph.D., *Vice-Rector, Çanakkale Onsekiz Mart University*
-  **Fikret Büyükkaya**, Ph.D., *Chemist's Society (Turkey)*
-  **Agon Memeti**, Ph.D., *University of Tetova*
-  **Bekim Fetaji**, Ph.D., *Vice-Rector, University "Mother Teresa" - Skopje*

21:00 Opening Cocktail





## Saturday, 26 August 2017 (Day 2)

**Chair: Kasım OCAKOĞLU**

-  09:00 – 09:30 **Melvin A. Pascall**, Ph.D., *"The Antimicrobial Effect of Small Molecule Compounds and their influence on the Properties of Starch Films"*
-  09:35 – 09:55 **Ferdane Karaman**, Ph.D., *"Effect of The Magnetic Field on Thermoelectric Properties of Poly (Sulfonic Acid Diphenyl Aniline)"*
-  10:00 – 10:20 **Adhurim Hoxha**, Ph.D., *"Correlation Between Phase Composition, Morphology and Photoactivity of TiO<sub>2</sub> Thin Films"*

10:20 – 10:30 Coffee Break

**Chair: Mehmet Seçkin ADAY**

-  10:30 – 10:50 **Bashkim Ziberi**, Ph.D., *"Multiscale Nano-Structuring of Si Surfaces Combining Top-Down and Bottom-Up Techniques"*
-  10:55 – 11:15 **Kutalmış Gökkuş**, Ph.D., *"The Removal of Cu, Fe, and Zn from Aqueous Solutions by Using Ion-Exchange and Adsorption Processes"*
-  11:20 – 11:40 **Zikriye Özbek**, Ph.D., *"Preparation and Characterization of Enzyme-Based Cholesterol Amperometric Biosensors"*
-  11:45 – 12:05 **Fatma Telli**, Ph.D., *"Thermokinetic Analysis of the Novel Biodegradable  $\alpha$ -Chloralose Based Styrene co-Polymer"*



12:05 – 12:55 Lunch

**Chairs: Yavuz Emre ARSLAN and Arianit A. REKA**

13:00 – 13:30 **Turgay Seçkin**, Ph.D., “Preparation of Polyimide Ammonium Salt and Its Use in Flexible Printed Circuit Boards”

13:35 – 13:55 **Öznur Güngör**, Ph.D., “Preparation of the Polyimide Membrane-Based Electrodes for the Detection of Bupivacaine”

14:00 – 14:20 **Anita Grozdanov**, Ph. D., “PANI/CNS Nanocomposites Aimed for Sensors”

14:20 – 14:30 Coffee Break

**Chair: Ahmed JASHARİ**

14:30 – 14:50 **Uğur Yahşi**, Ph.D., “Investigation of a Relationship Between Free Volume and Ionic Conductivity of PVdF-co-HFP with Ionic Liquid”

14:55 – 15:15 **Seda Tıǧlı Aydın**, Ph.D., “Targeted Nanoparticles for Cancer Treatment”

15:20 – 15:40 **Mehmet Seçkin Aday**, Ph.D., “Quality Extension of Fresh Lemons by Using the Breatheway Membrane Technology”

15:45 – 16:05 **Seyhan Ulusoy** “Anti-biofilm Properties of Milk and Colostrum Samples”

16:05 – 16:15 Coffee Break

**Chairs: Liridona USEINI and Mustafa ATAN**

16:15 – 18:00 **Elif Karacan Yeldir**, Ph.D. Student, “Morphological Study of Chitosan Nanobeads”

**Aygül Can**, M.Sc., “Evaluation of Antimicrobial Activity of Niosome Encapsulated Olive Leaf Extract against Foodborne Pathogens”

**Arta Veliu**, Master Student, “Study of controlled release of (E)-3-[2-(thiazol-2-il)hydrazinylidene]kromane-2,4-dion from alginate hydrogels”

**Nilben Hararoğlu**, Undergraduate Student, “Characterization to Microporous-Nanofiber Structure of Chitosan/Fibroin Composite for Wound Dressing Applications”

**Mustafa Çakır**, Ph.D., “Determining the Coating Performance of UV Curable Hydrophobic Coating onto PMMA”

**Volkan Kılıç**, Ph.D. Student, “Preparation of Graphene Oxide Containing Isocyanate-based Polyimide Foam”

**Mine Kurtay**, Ph.D. Student, “The usage of Various Plant Extract as Corrosion Inhibitors”

## Sunday, 27 August 2017 (Day 3)

**Chairs: Turgay SEÇKİN and Ayhan ORAL**

- 09:<sup>00</sup> – 09:<sup>30</sup> Yusuf Yağcı, Ph.D., “Macromolecular Design for Bioapplications”
- 09:<sup>35</sup> – 09:<sup>55</sup> Çiğdem Şahin, Ph.D., “Synthesis, Characterization and Photophysical Properties of Iridium Complexes with 2-Phenylimidazo[4,5-F][1,10]-Phenanthroline Derivatives as Auxiliary Ligands”
- 10:<sup>00</sup> – 10:<sup>20</sup> Kasım Ocakoğlu, Ph.D., “Design and Preparation of Highly Transparent Single-layer Graphen-Based Biohybrid Electrode for Fuel Production”

10:<sup>20</sup> – 10:<sup>30</sup> Coffee Break

**Chair: Arianit A. REKA and Egzon ADEMI**

- 10:<sup>30</sup> – 10:<sup>50</sup> Süleyman Köytepe, Ph.D., “Investigation of the Degradation Kinetics of Peg-Polyphenol-Cyclodextrin Based Hydrogels”
- 10:<sup>55</sup> – 11:<sup>15</sup> Sani Demiri, Ph.D., “Etching Effect on The Co-Gas Sensitivity of MWCNT Decorated ZnO Seed Layers”
- 11:<sup>20</sup> – 11:<sup>40</sup> Yavuz Emre Arslan, Ph.D., “Decellularization and Characterization of Bovine Tibia for Bone Tissue Engineering Applications”
- 11:<sup>45</sup> – 12:<sup>05</sup> Altin Gjevori, Ph.D., “Influence of Oxiliary Plasma Source on the Photoactivity of TiO<sub>2</sub> Thin Films”

12:<sup>05</sup> – 12:<sup>55</sup> Lunch

**Chair: Orhan ATAOL**

- 13:<sup>00</sup> – 13:<sup>30</sup> Mehmet Atilla Tasdelen, Ph.D., “New Trends in Functionalization of Polysulfones”
- 13:<sup>35</sup> – 13:<sup>55</sup> Esin Eren, Ph.D., “The Effect of Conducting Polymers in Plasma Modified WO<sub>3</sub> Hybrids for Flexible Electrochromic Applications”
- 14:<sup>00</sup> – 14:<sup>20</sup> Arianit A. Reka, Ph. D., “Physicochemical Characterization of The Diatmoaceous Earth From Vitačevo (Kavadarci)”


14:<sup>20</sup> – 14:<sup>30</sup> Coffee Break

**Chairs: Nurcan KARACA and Seda BEKİN ACAR**

- 14:<sup>30</sup> – 14:<sup>50</sup> İsmail Taş, Ph.D., “Effects of Some Essential Oil Components of Rose and Thyme on the Germination of Corn Seed”
- 14:<sup>55</sup> – 15:<sup>15</sup> Ahmed Jashari, Ph.D., “Design and Synthesis of Small Coumarin Molecules with High Anticancer Potential”
- 15:<sup>20</sup> – 15:<sup>40</sup> Emin Yakar, Ph.D., “Radar Absorbing Materials Used in Aviation: Synthesis of Barium Hexaferrit by Sol-Gel Method”

15:40 – 15:50 Coffee Break

**Chairs: Aygöl CAN and Egzon ADEMI**

 15:50 – 17:30 **Nilüfer Kıvılcım**, Ph.D., *“Preparation of Ionic Polymer with Controlled Architecture”*

**Gülbahar Kıdıman**, Master Student, *“Production and Characterization of Tunica Interna and Tunica Media Layers from Poly( $\epsilon$ -caprolactone) and Collagen Polymers by Biomimetic Approach”*

**Mustafa Atan**, Master Student, *“Effect of Packaging Materials on Mushroom Quality During Different Transportation Frequencies”*

**Emre Akın**, Ph.D. Student, *“Investigation on Coating Properties of Epoxyacrylate Containing Long Fluorine Chains Cured by UV method”*


**Hilmi Mert Topçu**, Ph.D. Student, *“Two Step Method for Producing Silica Aerogel”*

**Murat Erdem**, Ph.D., *“Concentration effect on the Nonlinear Optical Absorption of the Novel 4-(2-(dibenzylamino)ethoxyl) Substituted Nickel (II) Phthalocyanine Complex”*

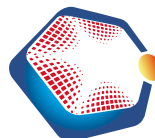
**Mesut Yıldız**, Ph.D. Student, *“New Generation Boron Containing Corrosion Inhibitors”*

**Aygün ALİYEVA**, Master Student, *“Assessment of Microbial Chondroitin NMR Results”*

### **Monday, 28 August 2017 (Day 4)**

 09:30 – 10:00 Closing Speech

 10:00 – 10:30 Meeting & Discussion



## PHYSICOCHEMICAL CHARACTERIZATION OF THE DIATOMACEOUS EARTH FROM VITAČEVO (KAVADARCI)

**Arianit Reka \***

University of Tetovo,  
MACEDONIA

**Blagoj Pavlovski**

Ss. Cyril and Methodius University,  
MACEDONIA

**Blazo Boev**

Goce Delčev University,  
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**Petre Makreski**

Ss. Cyril and Methodius University,  
MACEDONIA

Diatomaceous earth (DE) is one of the most intensively examined raw materials in the materials science, with a broad use in various industries due to its application in ceramic, chemical, pharmaceutical, food industries, in drinking and waste water treatments, as well as in the development of new technologies, i.e. fabrication of semiconductors, optical fibers, solar cells. The DE subjected in this work was collected from Vitačevo region in the vicinity of Kavadarci. For the characterization of the DE the following examinations were performed: physical-mechanical, chemical, XRPD, SEM and IR examinations. From the physical-mechanical point of view, the subjected DE represents a white to gray rock with homogenous texture and shell-like fragility. The DE is light, soft, weakly bound, and in dry state exhibits compressive strength from 3.25 to 4.25 MPa. The total porosity ranged between 70% and 72%, whereas the density was 2.03–2.06 g/cm<sup>3</sup>. The chemical analysis of DE revealed a SiO<sub>2</sub> content exceeding 90%. The results from the X-ray powder diffraction indicate amorphous SiO<sub>2</sub> phase with the established presence of muscovite, quartz, cristobalite and feldspars peaks. The IR spectrum of the DE depicted absorption bands at 800 cm<sup>-1</sup> and 1103 cm<sup>-1</sup> due to the presence of the amorphous SiO<sub>2</sub>, whereas the weak absorption band in the region 3200–3700 cm<sup>-1</sup> accompanied by the low intensity band at 1636 cm<sup>-1</sup> appeared from the stretching and bending vibrations arising from the adsorbed water. The results of the SEM analysis of the DE provided valuable information on the morphology, surface characteristics as well as the nanometric pores in the raw material.

**Keywords:** characterization, diatomaceous earth, physical and chemical properties



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